

Abstract

Introduction: One of the important barriers of treatment of pain in non-verbal patients is the lack of good instrument for assessing pain. The aim of this study was to compare psychometric properties of the Behavioral Pain Scale and Non-Verbal Pain Scale with each other.

Method: four raters by using two scales BPS and NVPS observed 60 ventilated patients hospitalized in trauma, medical, neurological, and surgical critical care units in 6 times (before, during and after two painful, and non-painful procedures). Re-test was examined by using of 33 participants, after 8-12 hours in 6 times.

Results: Alpha coefficient for both scales BPS and NVPS in total, 0/749 and 0/80 respectively; and the correlation coefficient for test and re-test for BPS (0/52-0/78) and NVPS (0/46-0/95) was obtained. Significant differences between painful and non-painful procedures ($p < 0/001$), and higher pain scores in patients who confirm the pain ($p < 0/001$), revealed good discriminant, and criterion validities for two scales respectively.

Conclusion: The BPS and NVPS-R have good psychometric properties and can be used as a reliable and valid instruments for pain assessment in ventilated patients.

Key Words: psychometric, pain assessment, Intensive care unit, pain assessment scales